

**The ABC transporter YejABEF is required for resistance to  
antimicrobial peptides and the virulence of *Brucella melitensis***

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## Supplemental Materials

**Supplemental Table S1** Primers used in this study.

Primer Name	Sequence (restriction enzyme used) (5'-3')	Locus (gene)
<b>Primers used for RT-PCR</b>		
pWU 855F	TACCAGCCCTTGACATCC	16S rRNA
pWU 856R	TCATCCCCACCTTCCTCT	
RT-061	AGAAGGCGAAACCGTAGC	BMNI_I0006
RT-062	GTGAAGCGGATTGAGCGAT	
RT-071	GTTACTGGTCGCTGTGGATT	BMNI_I0007
RT-072	TCGTTATTGACGGTGTGTTG	
RT-081	ATTCCACTCGGCATTCG	BMNI_I0008
RT-082	GAAATCGGGCGAGGTG	
RT-091	CGGTGCTTACAAGGTCG	BMNI_I0009
RT-092	CGATGCTGCCCTTCTTG	
RT-101	GTGGCGGGATGCTTA	BMNI_I0010
RT-102	GCACATTGAACGACCAGA	
<b>Primers used for gene deletion</b>		
WD0285	AACTGCAGCCCCGCCGTGATAGGTCTT	BMNI_I0006
WD0286	GC GGATCC TGCGTCAATCCCAG	
WD0287	CGATCCGCTACTCATTG	
WD0288	CG GGATCC TGCGTCAATCCCAG	
WD0289	AACTGCAG AGCAGTTGGGCTTGTG	BMNI_I0007
WD0290	GACGTGTGATGGGTCAATGAGTAGC	
WD0291	CACACGTCCCTCCGGTC	
WD0292	CG GGATCC GGCGGTTCTCTTGAC	
WD0297	AACTGCAG AATGCGGAAGCCATAGAG	BMNI_I0008
WD0298	TCCAGCTGTGACCGACACCGCACTC	
WD0299	CAGCTGGACCTTATCCG	
WD0300	CG GGATCC TGCGAGCCAGTATCAG	
WD0293	AACTGCAG CTTGCGAATGCCGAGTG	BMNI_I0009
WD0294	TCCTTGCTTACCGGAAAGTGGCGA	
WD0295	GCAAAGGAATGTCATT	
WD0296	CG GGATCC GGCAATCCGTTCACCA	
WD0301	AACTGCAG GGCAGACGATTACAAAG	BMNI_I0010
WD0302	TTCAGGCCAGTTCTCCACGTTTG	
WD0303	GGCCTGAACGAGAATG	
WD0304	CG GGATCC AGGTGAATGCCACATCG	

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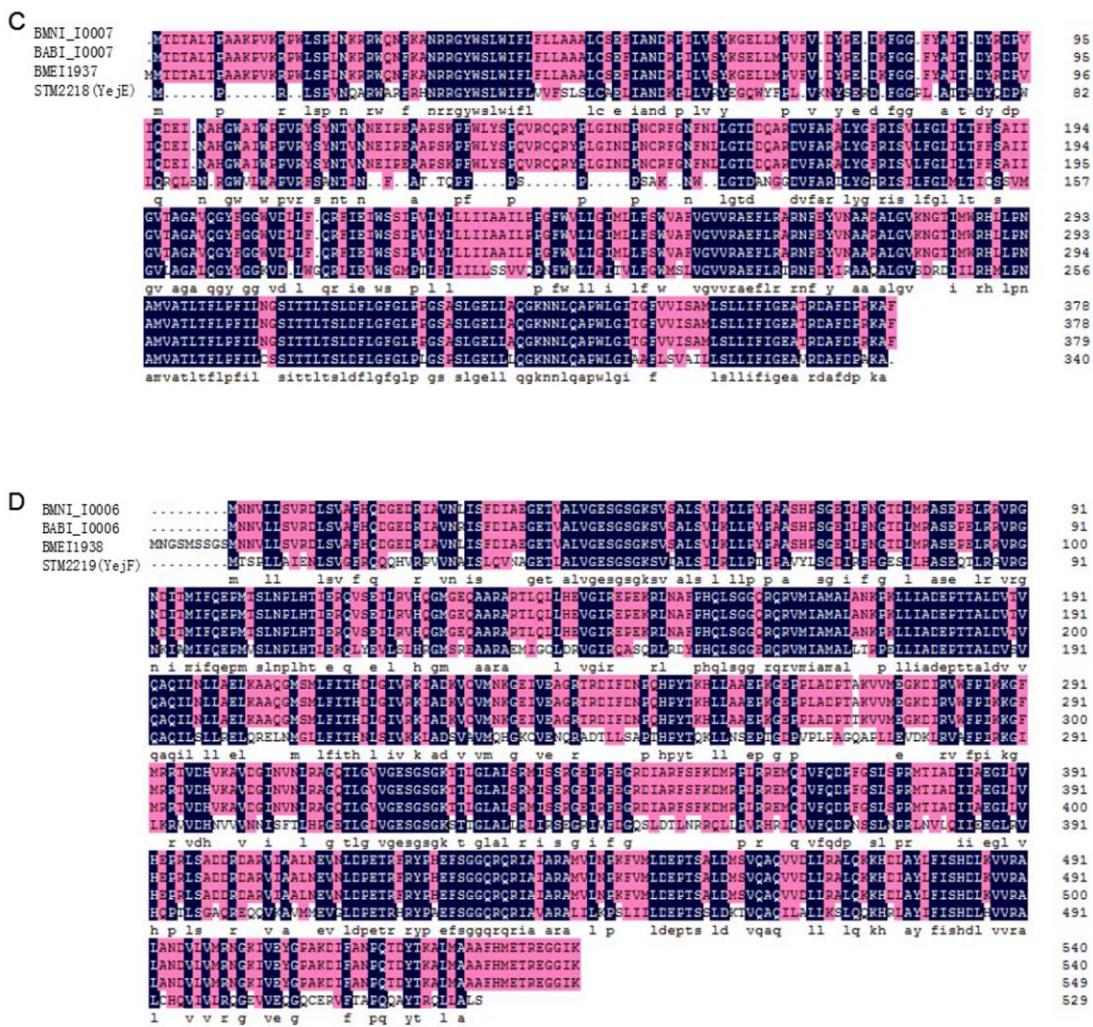
WD0097	GGGGTACC GCGATACGAAGGGAA	BMNI_I0006-10
WD0098	CGAAGGTGCCGCCGTGATAGGTCTT	
WD0099	CACCTTCGGTTTGCTCCTG	
WD0100	CG GGATCC GGGATCGAACCTGAAGAC	

**Primers used for gene complementation**

C0007-1	CGGGATCCATGACCGACACCGCACTC	BMNI_I0007
C0007-2	AACTGCAGTCATAAAAATGCCTTCGC	
C0007-P1	TCCCCCGGGCTTACGGCTGGAATTTC	BMNI_I0007 promoter
C0007-P2	CGGGATCCTCTCCACGTTTGTCCAG	

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B	BMNI_I0008	MGAYIIIPRLLIMPTIILGCMPLISAVQCAFPGGFYERVIAQLS.GQQGIALERISCG-.SDFCQSAIDSQSVN.SYRCAGCLDQJIACLEKQGFDK	96
	BABI_I0008	MGAYIIIPRLLIMPTIILGCMPLISAVQCAFPGGFYERVIAQLS.GQQGIALERISCG-.SDFCQSAIDSQSVN.SYRCAGCLDQJIACLEKQGFDK	96
	BMEI1936	MGAYIIIPRLLIMPTIILGCMPLISAVQCAFPGGFYERVIAQLS.GQQGIALERISCG-.SDFCQSAIDSQSVN.SYRCAGCLDQJIACLEKQGFDK	96
	STM2217 (YeJiB)	MGAYIIIPRLLIVPPTIILGCMPLISAVQCAFPGGFYERVIAQLS.GQQGIALERISCG-.SDFCQSAIDSQSVN.SYRCAGCLDQJIACLEKQGFDK	97
	mgay rrlll ptl i f vg apggpv ia gggg al sg g q g s yrg gldp ia gfck		
	PELER.QGMLNNYMPFDFFGCSF.RFDISVILIKEKNTLSIYNSIPIFGIRKA.IKGGSFPIWTSVSIIGYAIRESFLFAILLIVVFA	194	
	PELER.QGMLNNYMPFDFFGCSF.RFDISVILIKEKNTLSIYNSIPIFGIRKA.IKGGSFPIWTSVSIIGYAIRESFLFAILLIVVFA	194	
	PELER.QGMLNNYMPFDFFGCSF.RFDISVILIKEKNTLSIYNSIPIFGIRKA.IKGGSFPIWTSVSIIGYAIRESFLFAILLIVVFA	194	
	PELER.QGMLNNYMPFDFFGCSF.RFDISVILIKEKNTLSIYNSIPIFGIRKA.IKGGSFPIWTSVSIIGYAIRESFLFAILLIVVFA	195	
	pl er f ml y fdff s fr sv lik pusi lgwt y siplirkka gsfwd w sa iiyaiap fifailliv fag		
	GSEFD.FFLRGLSISPFQAGMVKFKIDYLWEMVLPVPAVULSAPFTITLTIKNSFISPIRKCYVWTARAKCIG-.NQVYHVFERNAMLIUIAGFFGP	293	
	GSEFD.FFLRGLSISPFQAGMVKFKIDYLWEMVLPVPAVULSAPFTITLTIKNSFISPIRKCYVWTARAKCIG-.NQVYHVFERNAMLIUIAGFFGP	293	
	GSEFD.FFLRGLSISPFQAGMVKFKIDYLWEMVLPVPAVULSAPFTITLTIKNSFISPIRKCYVWTARAKCIG-.NQVYHVFERNAMLIUIAGFFGP	293	
	GSYVDFFLRGLSISPFQAGMVKFKIDYLWEMVLPVPAVULSAPFTITLTIKNSFISPIRKCYVWTARAKCIG-.NQVYHVFERNAMLIUIAGFFGP	294	
	gs d fpzrlk s f w k ikydwlw lpv a v fa t l tksnsl rkqwy taraskg e n l hvfrnaml viagfp f		
	IS F FTGSLLIEIIIFSLIIGLGLGYSQSVINRCYFVVPBNMISIISIIGLVLGLISLDIVTWDPRIDEFDP	364	
	IS F FTGSLLIEIIIFSLIIGLGLGYSQSVINRCYFVVPBNMISIISIIGLVLGLISLDIVTWDPRIDEFDP	364	
	IS F FTGSLLIEIIIFSLIIGLGLGYSQSVINRCYFVVPBNMISIISIIGLVLGLISLDIVTWDPRIDEFDP	364	
	IS F FTGSLLIEIIIFSLIIGLGLGYSQSVINRCYFVVPBNMISIISIIGLVLGLISLDIVTWDPRIDEFDP	364	
	is f ftgallie fal glcllyav rkdvw f l i liall lsd vr dridrf x		



**Figure S1** Alignment of the amino acid sequences of Yej proteins of *Brucella* with them in *S. Typhimurium* LT2. (A) YejA, (B) YejB, (C) YejE, (D) YejF. Shadows of navy and pink indicated the amino acid sequence identities are 100% and 75%, respectively. The accession numbers of the *yej* operon genes in *B. melitensis* NI are, *yejA1*:GI:384444099, *yejA2*:GI:384444098, *yejB*:GI:384444097, *yejE*:GI:384444096, and *yejF*:GI:384444095, respectively; in *B. melitensis* 16M are, *yejA1*:GI:17988217, *yejA2*:GI:17988218, *yejB*:GI:17988219, *yejE*:GI:17988220, and *yejF*:GI:17988221, respectively; in *B. abortus* 2308 are, *yejA1*:GI:82698942, *yejA2*:GI:82698941, *yejB*:GI:82698940, *yejE*:GI:82698939, and *yejF*:GI:82698938, respectively; the accession numbers of the *yej* operon genes in *S. Typhimurium* LT2 are, *yejA*:GI:16765545, *yejB*:GI:16765546, *yejE*:GI:16765547, *yejF*:GI:16765548, respectively.